fluorescence quantum yield is less than < 0.1 % in case of bipyridine **3c** with *p*-methoxyphenyl moiety.

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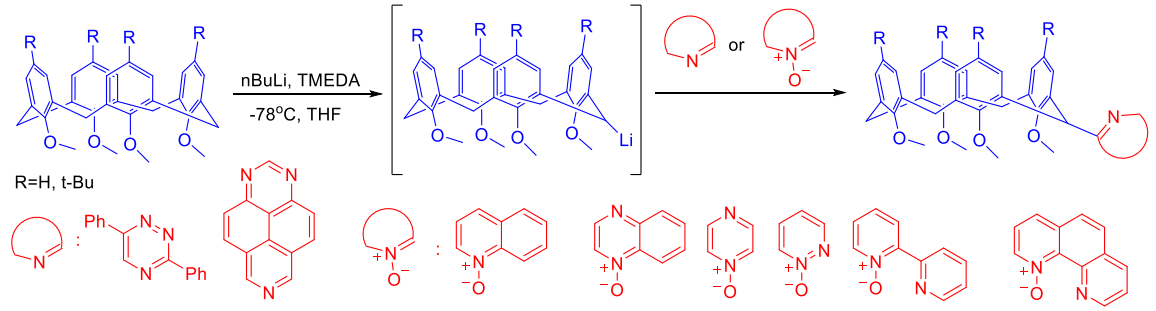
T. D. Moseev[1], M. V. Varaksin[1, 2], I. A. Lavrinchenko[1], O. N. Chupakhin[1, 2✶], V. N. Charushin[1, 2]

[1]Ural Federal University,
620002, Russia, Ekaterinburg, Mira St., 19,
[2]Institute of Organic Synthesis,
Ural Branch of the Russian Academy of Sciences,
620041, Russia, Ekaterinburg, S. Kovalevskaya St., 22,
chupakhin@ios.uran.ru

SYNTHESIS OF MESO-SUBSTITUTED CALIX[4]ARENES VIA REACTION OF NUCLEOPHILIC SUBSTITUTION OF HYDROGEN (S_N^H) IN AZINE OR AZINE-N-OXIDES*

Keywords: Calix[4]arenes, azines, C-C coupling, nucleophilic substitution of hydrogen.

Calixarenes are known to be one of the key structural units in supramolecular chemistry. An enhanced interest in this promising class of macrocyclic compounds is due to wide opportunities of their practical use. Indeed, calixarenes proved to be effective receptors for selective extraction of metal ions, catalysts, chemosensors, transmembrane ion transporters, materials for nonlinear optics, biologically active substances etc.



Scheme 1. Synthesis of Meso-Substituted Calix[4]Arenes via Nucleophilic Substitution of Hydrogen (S_N^H) in Azine or Azine-N-Oxides

Novel calix[4]arenes bearing azinyl fragments at the meso-position have been synthesized through the direct, non-catalyzed by transition metals, cross-coupling reaction of π-deficient azaaromatic compounds with the lithium salts of tetramethoxycalixarenes. The approach is based on using the methodology of nucleophilic substitution of hydrogen (S_N^H) in heteroaromatic systems.

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T. D. Moseev[1], M. V. Varaksin[1, 2], E. A. Nikiforov[1], A. P. Krinochkin[1, 2], D. S. Kopchuk[1, 2], G. V. Zyryanov[1, 2], O. N. Chupakhin[1, 2]★, V. N. Charushin[1, 2]

[1]Ural Federal University,
620002, Russia, Ekaterinburg, Mira St., 19,
[2]Institute of Organic Synthesis,
Ural Branch of the Russian Academy of Sciences,
620041, Russia, Ekaterinburg, S. Kovalevskaya St., 22,
chupakhin@ios.uran.ru

ARYNE-MEDIATED TRANSFORMATIONS OF 5-PERFLUOROPHENYL-SUBSTITUTED 3-(PYRIDIN-2-YL)-1,2,4-TRIAZINES*

Keywords: pyrido[1,2-*a*]indoles, aryne, rearrangement.

Fluorinated organic compounds are known to have many applications in various fields of science and technology. In particular, they can be regarded as fascinating candidates for medicinal and agricultural chemistry, as well as active ingredients in the design of new functional and photoactive materials for molecular electronics.